

52562  
SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Blessing Fulara Examiner #: 77687 Date: 10-6-01  
Art Unit: 1161 S Phone Number 308-8374 Serial Number: 091765-039  
MailBox and Bldg/Room Location: 2B11 Results Format Preferred (circle): PAPER DISK E-MAIL  
2301 cm

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: CATIONIC POLYMERS AND THEIR USES  
Inventors (please provide full names): SON NGUYEN KIM, AXEL SANNER  
WOLKER SCHEHL MANN

Earliest Priority Filing Date: 08/24/1998

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Polymer from free radical polymerization of  
parts a, b, c and d. of clm 1

— polymer useful in hair care, cosmetic skin care

Copy of claims attached.

Thanks

Point of Contact:  
Susan Hanley  
Technical Info. Specialist  
CM1 12C14 Tel: 305-4053

## STAFF USE ONLY

Searcher: Hanley  
Searcher Phone #: \_\_\_\_\_  
Searcher Location: \_\_\_\_\_  
Date Searcher Picked Up: 10/8  
Date Completed: 10/16  
Searcher Prep & Review Time: \_\_\_\_\_

## Type of Search

NA Sequence (#) \_\_\_\_\_  
AA Sequence (#) \_\_\_\_\_  
Structure (#) \_\_\_\_\_  
Bibliographic \_\_\_\_\_  
Litigation \_\_\_\_\_  
Fulltext \_\_\_\_\_  
Patent Family \_\_\_\_\_  
Other \_\_\_\_\_

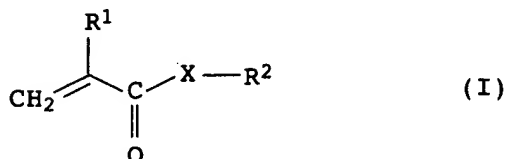
## Vendors and cost where applicable

STN \_\_\_\_\_  
Dialog \_\_\_\_\_  
Questel/Orbit \_\_\_\_\_  
Dr. Link \_\_\_\_\_  
Lexis/Nexis \_\_\_\_\_  
Sequence Systems \_\_\_\_\_  
WWW/Internet \_\_\_\_\_  
Other (specify) \_\_\_\_\_

We claim:

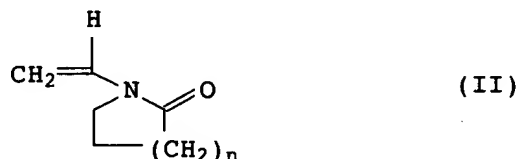
1. A cationic polymer obtainable by free-radical copolymerization of

(a) from 50 to 70% by weight of one or more monomers of the formula I



- X = O, NR<sup>1</sup>,  
R<sup>1</sup> = H, C<sub>1</sub>-C<sub>8</sub>-alkyl,  
R<sup>2</sup> = tert-butyl,

(b) from 5 to 45% by weight of one or more monomers of the formula II



where n = 1 to 3,

- (c) from 5 to 40% by weight of a monoethylenically unsaturated monomer having at least one amine-containing group,  
(d) from 0 to 5% by weight of a polyalkylene oxide-containing silicone derivative,

where up to 40% by weight, based on (a), (b), (c) and (d), of the monomer (a) can be replaced by a monomer of the formula I where R<sup>2</sup> = C<sub>2</sub>-C<sub>22</sub>-alkyl.

2. A polymer as claimed in claim 1, obtainable by free-radical copolymerization of

- (a) from 51 to 65% by weight of the monomer of the formula I,  
(b) from 7 to 39% by weight of the monomer of the formula II,  
(c) from 10 to 30% by weight of the amine-containing monomer.

3. A polymer as claimed in claim 1, wherein the monomer (a) is tert-butyl acrylate, N-tert-butylacrylamide and/or tert-butyl methacrylate.
- 5 4. A polymer as claimed in claim 1, wherein the monomer (b) is vinylpyrrolidone and/or vinylcaprolactam.
5. A polymer as claimed in claim 1, wherein the monomer (c) is dimethylaminoalkyl (meth)acrylate and/or dimethylaminoalkyl (meth)acrylamide.
- 10 6. A polymer as claimed in claim 1, wherein the monomers of the formula I where  $R^2 = C_2-C_{22}$ -alkyl are N-butylacrylamide, N-octylacrylamide, lauryl (meth)acrylate or stearyl (meth)acrylate.
- 15 7. The use of polymers as claimed in claim 1 to 6 for cosmetic preparations.
- 20 8. The use as claimed in claim 7 as setting polymers in hair spray, foam setting compositions, hair mousse, hair gel or shampoos.
9. A cosmetic preparation comprising a polymer as claimed in claim 1 in an amount of from 0.1 to 30% by weight, based on the preparation
- 25 10. A cosmetic preparation as claimed in claim 9, wherein the polymer is partially or completely neutralized using a monohydric acid, preferably using a polyhydric acid or a polycarboxylic acid, or is quaternized using a quaternizing agent.
- 30 11. A cosmetic preparation as claimed in claim 10, wherein the polymer is partially or completely neutralized using phosphoric acid or an acid mixture containing phosphoric acid.
- 35 12. The use of polymers as claimed in one of <sup>claim 1</sup> ~~claims 1 to 6~~ having a glass transition temperature of  $> 25^\circ\text{C}$  and a K value of from 25 to 70, preferably from 35 to 50, for hair cosmetics.
- 40 13. A hair cosmetic preparation comprising

(a) from 0.2 to 20% by weight of a polymer as claimed in ~~one~~  
of ~~claims 1 to 6~~,

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(b) from 0 to 10% by weight of a conventional hair-setting  
polymer,

(c) from 0 to 1% by weight of a water-dispersible  
siloxane-containing compound,

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(d) from 30 to 99.5% by weight of a solvent or solvent  
mixture of alcohol and water,

(e) from 0 to 60% by weight of a propellant comprising  
dimethyl ether and/or propane/butane, and

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(f) from 0 to 0.3% by weight of a cosmetically suitable  
additive.

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14. The use as claimed in claim 7 as a constituent in cosmetic  
skin preparations.

15. The use as claimed in claim 14, wherein a fatty acid amide is  
additionally used.

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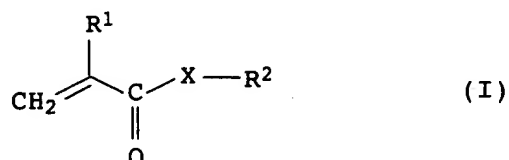
# Cationic polymers and their use

## Abstract

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Cationic polymers are obtainable by free-radical copolymerization of

- (a) from 50 to 70% by weight of one or more monomers of the  
10 formula I

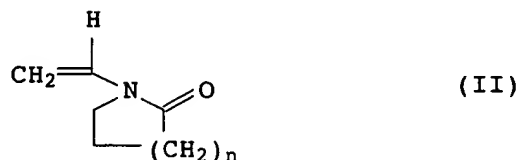


X = O, NR<sup>1</sup>,  
R<sup>1</sup> = H, C<sub>1</sub>-C<sub>8</sub>-alkyl,  
R<sup>2</sup> = tert-butyl,

20

- (b) from 5 to 45% by weight of one or more monomers of the  
formula II

25



where n = 1 to 3,

30

- (c) from 5 to 40% by weight of a monoethylenically unsaturated  
monomer having at least one amine-containing group,

- (d) from 0 to 5% by weight of a polyalkylene oxide-containing  
35 silicone derivative,

where up to 40% by weight, based on (a), (b), (c) and (d), of the  
monomer (a) can be replaced by a monomer of the formula I where  
R<sup>2</sup> = C<sub>2</sub>-C<sub>22</sub>-alkyl.

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FUBARA 09/762,039

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(FILE 'HOME' ENTERED AT 14:48:30 ON 16 OCT 2001)

FILE 'REGISTRY' ENTERED AT 14:48:56 ON 16 OCT 2001  
ACT FUB039P/A

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L1 STR  
L2 SCR 2043 AND 2127  
L3 STR  
L4 1732 SEA FILE=REGISTRY SSS FUL L1 AND L3 AND L2  
-----

L5 71943 S PVIN/PCT AND N/ELS  
L6 1725 S L4 AND L5  
L7 160 S L6 AND SI/ELS  
L8 160 S L7 AND NC>2

FILE 'HCAPLUS' ENTERED AT 14:50:46 ON 16 OCT 2001

L9 67 S L8  
L10 1 S L9 AND CATION?  
L11 10 S L9 AND (HAIR OR COSMETIC)  
L12 1 S L10 AND L11  
L13 9 S L11 NOT L12

← cp do w/ components A, B, C & D

↑  
Si

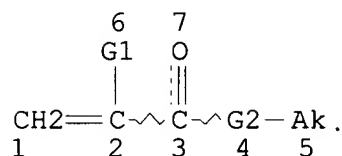
1 cite  
9 cites

where the Si is in the  
formula of the polymer  
(not only text +  
modification)

=&gt; d que 19 ?

L1

STR

*Component A*

N~Ak

Ak @11

@8 9

VAR G1=H/11

VAR G2=O/8

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 5

CONNECT IS E1 RC AT 9

CONNECT IS E1 RC AT 11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M2 C AT 5

ECOUNT IS X10 C AT 9

ECOUNT IS X10 C AT 11

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

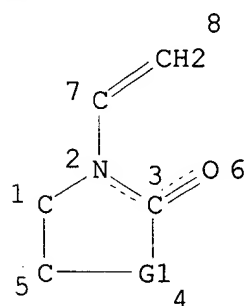
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L2 SCR 2043 AND 2127

L3

STR

*Component B*

REP G1=(1-3) CH2

NODE ATTRIBUTES:

CONNECT IS E2 RC AT 7

DEFAULT MLEVEL IS ATOM

FUBARA 09/762,039

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L4	1732	SEA	FILE=REGISTRY	SSS	FUL	L1 AND L3 AND L2
L5	71943	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	PVIN/PCT AND N/ELS
L6	1725	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	L4 AND L5
L7	160	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	L6 AND SI/ELS
L8	160	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	L7 AND NC>2
L9	67	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L8



=&gt; d ibib abs hitstr

L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2001 ACS  
 ACCESSION NUMBER: 1995:994509 HCAPLUS  
 DOCUMENT NUMBER: 124:90196  
 TITLE: Polymers containing organopolysiloxane side chains  
 useful as textile finishing agents and  
**cosmetics** and manufacture of the same  
 INVENTOR(S): Shimizu, Yoshio; Takizawa, Masahiro; Isoda, Masanori;  
 Shibazaki, Kenichiro; Nakayama, Kiyoshi  
 PATENT ASSIGNEE(S): Lion Corp., Japan  
 SOURCE: PCT Int. Appl., 157 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9523889	A1	19950908	WO 1995-JP353	19950303
W: CN, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 07243173	A2	19950919	JP 1994-60335	19940303
JP 07070204	A2	19950314	JP 1994-75368	19940322
JP 07268778	A2	19951017	JP 1994-75369	19940322
JP 07069828	A2	19950314	JP 1994-169059	19940628
JP 08183826	A2	19960716	JP 1994-340249	19941229

## PRIORITY APPLN. INFO.:

JP 1994-60335	19940303
JP 1994-75368	19940322
JP 1994-75369	19940322
JP 1994-169059	19940628
JP 1994-340249	19941229
JP 1993-187185	19930630
JP 1993-187186	19930630

AB The polymers consist of vinyl polymers having wt.-av. mol. wt. 5000-5,000,000 and having organopolysiloxane side chains bearing no. of Si 2-500 or polysaccharides contg. organopolysiloxane side chains or protein compds. contg. organopolysiloxane side chains and are useful as agents for improvement of softness and resilience of textiles, **hair** rinses, **hair** sprays, shampoos, and shaving creams. Thus, 15 parts CH<sub>2</sub>:CMeCO<sub>2</sub>(CH<sub>2</sub>)<sub>3</sub>(SiMe<sub>2</sub>O)<sub>n</sub>SiMe<sub>3</sub> (n = 133) was copolymd. with 2 parts CH<sub>2</sub>:CMeCO<sub>2</sub>CH<sub>2</sub>CH(OH)CH<sub>2</sub>O<sub>2</sub>CCH<sub>2</sub>S(CH<sub>2</sub>CH<sub>2</sub>CO<sub>2</sub>Bu)<sub>m</sub> (m = 45) and 80 parts acrylamide to give an organopolysiloxane side chain-contg. polymer (I) sol. in EtOH or iso-PrOH. A cotton broadcloth was treated with an aerosol compn. contg. I and dried to give a fabric with softness rating (6 softness similar to that of a **cationic** softener-treated fabric, 1 hardness similar to that of a spray-starched fabric) 5 and excellent surface smoothness and resilience.

## IT 172489-39-3P

RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (manuf. of; for textile finishing agents and **cosmetics**)

RN 172489-39-3 HCAPLUS

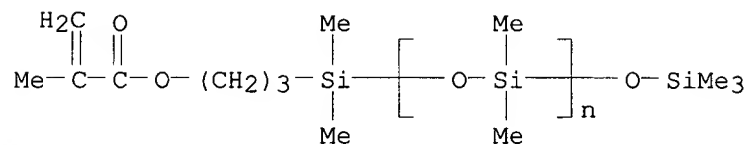
CN 2-Propenoic acid, butyl ester, telomer with 2-mercaptopropanoic acid, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, polymer with .alpha.-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-.omega.-[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 123109-42-2

CMF (C2 H6 O Si)<sub>n</sub> C12 H26 O3 Si2

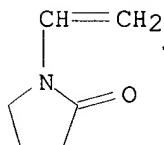
CCI PMS



CM 2

CRN 88-12-0

CMF C6 H9 N O



CM 3

CRN 172489-38-2

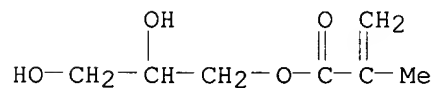
CMF C7 H12 O4 . x (C7 H12 O2)x . x C3 H6 O2 S

CDES 8:GD

CM 4

CRN 5919-74-4

CMF C7 H12 O4



CM 5

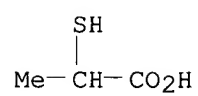
CRN 172351-44-9

CMF (C7 H12 O2)x . C3 H6 O2 S

CM 6

CRN 79-42-5

CMF C3 H6 O2 S



CM 7

CRN 9003-49-0

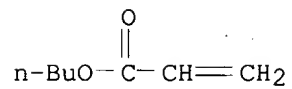
CMF (C7 H12 O2) x

CCI PMS

CM 8

CRN 141-32-2

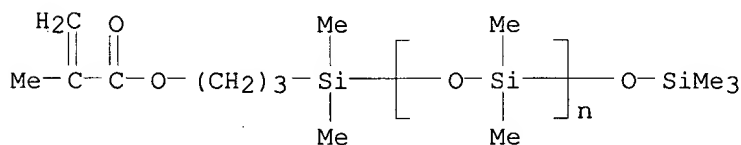
CMF C7 H12 O2



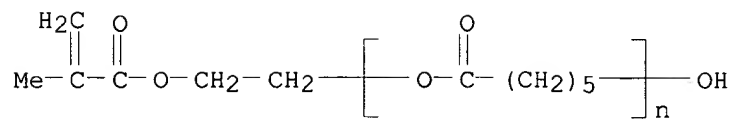
=&gt; d ibib abs hitstr 1

L13 ANSWER 1 OF 9 HCAPLUS' COPYRIGHT 2001 ACS  
 ACCESSION NUMBER: 2001:369675 HCAPLUS  
 DOCUMENT NUMBER: 134:371580  
 TITLE: Storage-stable **hair** conditioners containing organopolysiloxane copolymers  
 INVENTOR(S): Tachibana, Kiyomi; Nomura, Toshio  
 PATENT ASSIGNEE(S): Kosei Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001139432	A2	20010522	JP 1999-321674	19991111
AB	<b>Hair</b> conditioners contain copolymers from polylactone group-contg. monomers and organopolysiloxane monomers. CH <sub>2</sub> :CMeCO <sub>2</sub> (CH <sub>2</sub> ) <sub>20</sub> (COC <sub>5</sub> H <sub>10</sub> O) <sub>3</sub> H 35, CH <sub>2</sub> :CMeCO <sub>2</sub> C <sub>3</sub> H <sub>6</sub> SiMe <sub>2</sub> O(SiMe <sub>2</sub> O) <sub>24</sub> SiMe <sub>3</sub> 60, and Me methacrylate 5 g were copolymd. in the presence of AIBN to give a copolymer. A shampoo contg. the copolymer showed <b>hair</b> -styling, -smoothing, and -conditioning effects.				
IT	<b>340285-21-4P</b> RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) ( <b>hair</b> conditioners contg. polylactone group-contg. organopolysiloxane copolymers)				
RN	340285-21-4 HCAPLUS				
CN	2-Propenoic acid, 2-ethylhexyl ester, polymer with .alpha.-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-.omega.-[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], 1-ethenyl-2-pyrrolidinone and .alpha.-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)], graft (9CI) (CA INDEX NAME)				
CM	1				
CRN	123109-42-2				
CMF	(C <sub>2</sub> H <sub>6</sub> O Si) <sub>n</sub> C <sub>12</sub> H <sub>26</sub> O <sub>3</sub> Si <sub>2</sub>				
CCI	PMS				



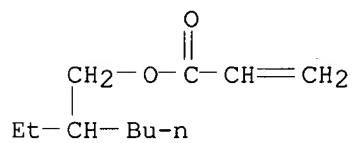
CM 2  
 CRN 81984-60-3  
 CMF (C<sub>6</sub> H<sub>10</sub> O<sub>2</sub>)<sub>n</sub> C<sub>6</sub> H<sub>10</sub> O<sub>3</sub>  
 CCI PMS



CM 3

CRN 103-11-7

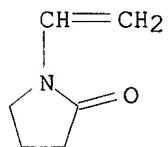
CMF C11 H20 O2



CM 4

CRN 88-12-0

CMF C6 H9 N O



=&gt; d ibib abs hitstr 2

L13 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:366073 HCAPLUS

DOCUMENT NUMBER: 134:371594

TITLE: Skin **cosmetics** containing organopolysiloxane copolymers

INVENTOR(S): Tachibana, Kiyomi; Nomura, Toshio

PATENT ASSIGNEE(S): Kosei Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

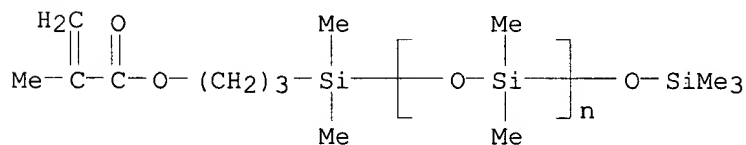
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001139415	A2	20010522	JP 1999-321673	19991111
AB	Skin <b>cosmetics</b> contain copolymers from polylactone group-contg. monomers and organopolysiloxane monomers. CH <sub>2</sub> :CMeCO <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> O(COC <sub>5</sub> H <sub>10</sub> O) <sub>3</sub> H <sub>35</sub> , CH <sub>2</sub> :CMeCO <sub>2</sub> C <sub>3</sub> H <sub>6</sub> SiMe <sub>2</sub> O(SiMe <sub>2</sub> O) <sub>2</sub> SiMe <sub>3</sub> <sub>60</sub> , and Me methacrylate 5 g were copolymd. in the presence of AIBN to give a copolymer. Lipsticks contg. the copolymer were not sticky and showed good adhesion to lips.				
IT	<b>340285-21-4P</b> RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) ( <b>cosmetics</b> contg. polylactone group-contg. organopolysiloxane copolymers)				
RN	340285-21-4 HCAPLUS				
CN	2-Propenoic acid, 2-ethylhexyl ester, polymer with .alpha.-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-.omega.-[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], 1-ethenyl-2-pyrrolidinone and .alpha.-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)], graft (9CI) (CA INDEX NAME)				
CM	1				
CRN	123109-42-2				
CMF	(C <sub>2</sub> H <sub>6</sub> O Si) <sub>n</sub> C <sub>12</sub> H <sub>26</sub> O <sub>3</sub> Si <sub>2</sub>				
CCI	PMS				

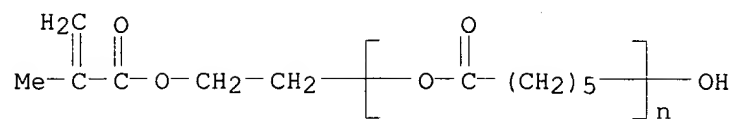


CM 2

CRN 81984-60-3

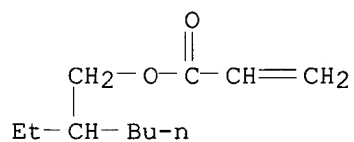
CMF (C<sub>6</sub> H<sub>10</sub> O<sub>2</sub>)<sub>n</sub> C<sub>6</sub> H<sub>10</sub> O<sub>3</sub>

CCI PMS



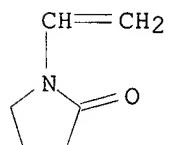
CM 3

CRN 103-11-7  
CMF C11 H20 O2



CM 4

CRN 88-12-0  
CMF C6 H9 N O



=&gt; d ibib abs hitstr 3

L13 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:217883 HCAPLUS

DOCUMENT NUMBER: 134:256593

TITLE: Polysiloxane block copolymers as bases for  
**hair**-styling preparations

INVENTOR(S): Tsuchihashi, Koji; Uchiyama, Yujiro

PATENT ASSIGNEE(S): Osaka Yuki Kagaku Kogyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

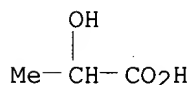
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 2001081018	A2	20010327	JP 1999-256261	19990909
AB	The <b>hair</b> -styling bases contain block copolymers prepd. by copolymn. of monomers including CH <sub>2</sub> :CR <sub>1</sub> COXR <sub>2</sub> N+Me <sub>2</sub> CH <sub>2</sub> CO <sub>2</sub> - (X = O, NH; R <sub>1</sub> = H, Me; R <sub>2</sub> = C <sub>2</sub> -3 alkylene) and ethylenically unsatd. carboxylate esters in the presence of polysiloxanes. The bases show good adhesion to <b>hair</b> , give good gloss to <b>hair</b> , and show <b>hair</b> -softening and -smoothing effects. A <b>hair</b> lotion contg. a block copolymer prepd. by polymn. of an azo-contg. dimethylpolysiloxane, methacryloyloxyethylenedimethylammonium carboxymethylbetaine, dimethylaminoethyl methacrylate, stearyl methacrylate, decyl methacrylate, and dodecyl methacrylate and neutralization of the copolymer with lactic acid was formulated.				
IT	<b>331284-82-3P</b> RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of betaine-contg. polysiloxane block copolymers as bases for <b>hair</b> -styling preps.)				
RN	331284-82-3 HCAPLUS				
CN	Ethanaminium, N-(carboxymethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, inner salt, polymer with .alpha.-[(3-aminopropyl)dimethylsilyl]-.omega.-[[[3-aminopropyl)dimethylsilyl]oxy]poly[oxy(dimethylsilylene)], 4,4'-azobis[4-cyanopentanoic acid], decyl 2-methyl-2-propenoate, 2-(dimethylamino)ethyl 2-methyl-2-propenoate, dodecyl 2-methyl-2-propenoate, N-ethenylacetamide, 1-ethenyl-2-pyrrolidinone and octadecyl 2-methyl-2-propenoate, block, 2-hydroxypropenoate (salt) (9CI) (CA INDEX NAME)				

CM 1

CRN 50-21-5

CMF C3 H6 O3



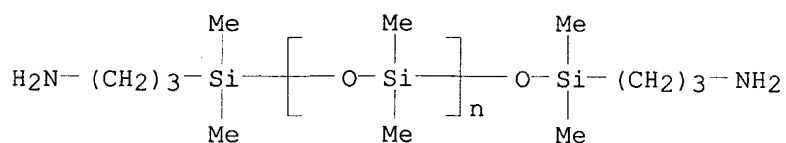
CM 2



CRN 331284-81-2  
 CMF (C22 H42 O2 . C16 H30 O2 . C14 H26 O2 . C12 H16 N4 O4 . C10 H17 N O4  
 . C8 H15 N O2 . C6 H9 N O . C4 H7 N O . (C2 H6 O Si)n C10 H28 N2 O  
 Si2)x  
 CCI PMS  
 CDES 8:PM,BLOCK

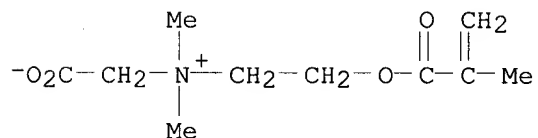
CM 3

CRN 97917-34-5  
 CMF (C2 H6 O Si)n C10 H28 N2 O Si2  
 CCI PMS



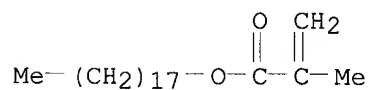
CM 4

CRN 62723-61-9  
 CMF C10 H17 N O4



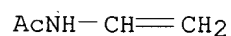
CM 5

CRN 32360-05-7  
 CMF C22 H42 O2



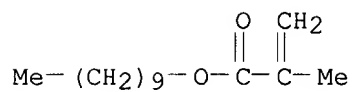
CM 6

CRN 5202-78-8  
 CMF C4 H7 N O



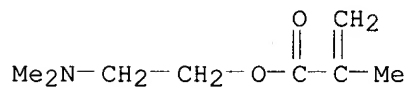
CM 7

CRN 3179-47-3  
CMF C14 H26 O2



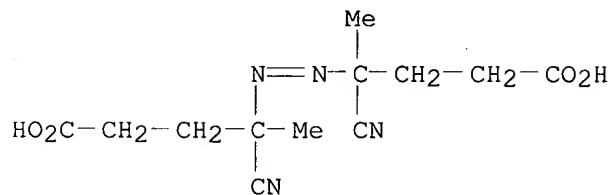
CM 8

CRN 2867-47-2  
CMF C8 H15 N O2



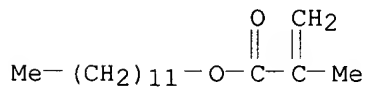
CM 9

CRN 2638-94-0  
CMF C12 H16 N4 O4



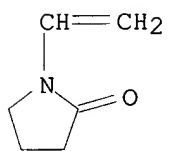
CM 10

CRN 142-90-5  
CMF C16 H30 O2



CM 11

CRN 88-12-0  
CMF C6 H9 N O



=&gt; d ibib abs hitstr 4

L13 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:779109 HCAPLUS

DOCUMENT NUMBER: 132:23290

TITLE: Personal care composition containing a clear homogeneous polymer of an N-vinyl lactam

INVENTOR(S): Liu, Kou-Chang

PATENT ASSIGNEE(S): Isp Investments Inc., USA

SOURCE: U.S., 7 pp., Cont.-in-part of U.S. 5,609,865.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5997855	A	19991207	US 1998-14465	19980128
US 5523369	A	19960604	US 1994-365257	19941228
US 5609865	A	19970311	US 1994-365258	19941228
US 5626836	A	19970506	US 1994-365259	19941228
US 6110454	A	20000829	US 1996-655492	19960530
WO 9938494	A1	19990805	WO 1999-US946	19990113
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9922325	A1	19990816	AU 1999-22325	19990113
PRIORITY APPLN. INFO.:		US 1994-365257	A2	19941228
		US 1994-365258	A2	19941228
		US 1994-365259	A2	19941228
		US 1998-14465	A	19980128
		WO 1999-US946	W	19990113

AB The patent describes a multicomponent homogeneous polymer of (a) from about 30 to about 90 wt.-% of a N-vinyl lactam, (b) from about 5 to about 30 wt.-% of a quaternized and/or nonquaternized aminoalkylacrylic ester and/or amide, (c) from about 0.5 to about 30 wt.-% of an unsatd. monomer selected from the group consisting of an acrylic ester or amide having a C4-C22 alkyl group, a C4-C22 .alpha.-olefin, a C4-C22 vinyl ether (VE) and a vinyl ester of a C2-C22 carboxylic acid and (d) from about 1 to about 30 wt.-% of an unsubstituted acrylic or methacrylic acid and/or an unsubstituted amide of said acrylic or methacrylic acid and optionally, (e) up to 20 wt.-% of a mono- or di-functional polysiloxane; all monomers combined to form a 100% polymer compn. of randomly distributed monomers for use in personal care formulations, particularly as a **hair** fixative where the clear, colorless and conditioning film forming properties of the polymer produces a silky, lustrous appearance to the **hair** and long lasting styling hold.

IT **234764-51-3P**, Acrylic acid-N-dimethylaminoethyl methacrylate-dodecyl methacrylate-DS-443-N-vinylpyrrolidone copolymer  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(personal **hair** care compn. contg. clear homogeneous polymer of N-vinyl lactam)

RN 234764-51-3 HCAPLUS

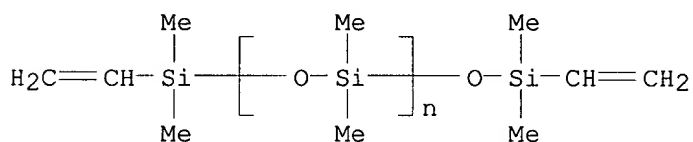
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
 dodecyl 2-methyl-2-propenoate, .alpha.-(ethenyldimethylsilyl)-.omega.-  
 [(ethenyldimethylsilyl)oxy]poly[oxy(dimethylsilylene)],  
 1-ethenyl-2-pyrrolidinone and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 59942-04-0

CMF (C2 H6 O Si)<sub>n</sub> C8 H18 O Si2

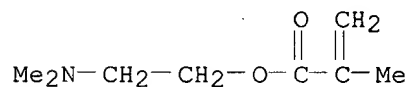
CCI PMS



CM 2

CRN 2867-47-2

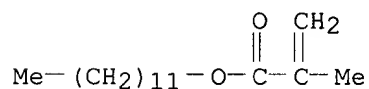
CMF C8 H15 N O2



CM 3

CRN 142-90-5

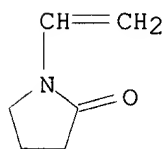
CMF C16 H30 O2



CM 4

CRN 88-12-0

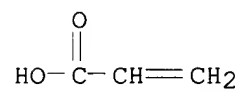
CMF C6 H9 N O



CM 5

FUBARA 09/762,039

CRN 79-10-7  
CMF C3 H4 O2



=&gt; d ibib abs hitstr 5

L13 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:495157 HCAPLUS

DOCUMENT NUMBER: 131:149061

TITLE: Personal care compositions containing a clear homogeneous polymer of an N-vinyllactam

INVENTOR(S): Liu, Kou-Chang

PATENT ASSIGNEE(S): ISP Investments Inc., USA

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

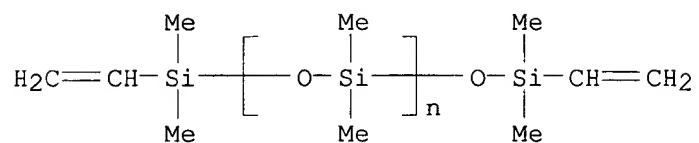
FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9938494	A1	19990805	WO 1999-US946	19990113
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 5997855	A	19991207	US 1998-14465	19980128
AU 9922325	A1	19990816	AU 1999-22325	19990113
PRIORITY APPLN. INFO.: US 1998-14465 A 19980128				
US 1994-365257 A2 19941228				
US 1994-365258 A2 19941228				
US 1994-365259 A2 19941228				
WO 1999-US946 W 19990113				
AB	A multicomponent homogeneous polymer for <b>cosmetic</b> and <b>hair</b> compns. consists of (a) 30-90% of a N-vinyllactam, (b) 5- 30% of a quaternized and/or nonquaternized aminoalkylacrylic ester and/or -amide, (c) 0.5-30% of an unsatd. monomer, e.g., C4-22 alkyl, (d) 1-30% of an unsubstituted acrylic or methacrylic acid and/or an its amide, and (e) up to 20% of a mono- or di-functional polysiloxane;. The clear, colorless and conditioning film forming properties of the polymer produce a silky, lustrous appearance to the <b>hair</b> and long lasting styling hold. A homogeneous polymer was prepd. from acrylic acid 10, dimethylaminopropylmethacrylamide 17, octadecyl methacrylate 3, and N-vinylcaprolactam 70%. An EtOH soln. of Vazo-67 as the initiator was added to the monomer mixt. A <b>hair</b> aerosol spray was prepd. by dissolving the polymer in EtOH and adding the required amt. of water.			
IT	<b>234764-51-3P</b>			
	RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)			
	(hair formulations contg. homogeneous polymer of vinyllactam)			
RN	234764-51-3 HCAPLUS			
CN	2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with dodecyl 2-methyl-2-propenoate, .alpha.-(ethenyldimethylsilyl)-.omega.-[(ethenyldimethylsilyl)oxy]poly[oxy(dimethylsilylene)], 1-ethenyl-2-pyrrolidinone and 2-propenoic acid (9CI) (CA INDEX NAME)			

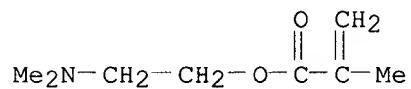
CM 1

CRN 59942-04-0  
 CMF (C2 H6 O Si)<sub>n</sub> C8 H18 O Si2  
 CCI PMS



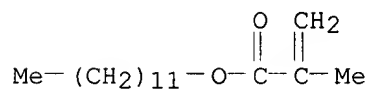
CM 2

CRN 2867-47-2  
 CMF C8 H15 N O2



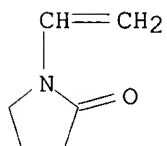
CM 3

CRN 142-90-5  
 CMF C16 H30 O2



CM 4

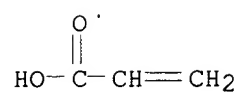
CRN 88-12-0  
 CMF C6 H9 N O



CM 5

CRN 79-10-7  
 CMF C3 H4 O2





REFERENCE COUNT:

.2

REFERENCE(S):

- (1) Liu; US 5492988 A 1996 HCAPLUS
- (2) Liu; US 5523369 A 1996 HCAPLUS

=&gt; d ibib abs hitstr 6

L13 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:481999 HCAPLUS

DOCUMENT NUMBER: 131:120621

TITLE: Powder compositions having improved dispersing abilities containing powder and polysiloxane-containing copolymers for **cosmetics**

INVENTOR(S): Tachibana, Kiyomi; Shimizu, Toru

PATENT ASSIGNEE(S): Kose Corp., Japan; Shin-Etsu Chemical Co., Ltd.

SOURCE: Eur. Pat. Appl., 34 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 931537	A2	19990728	EP 1999-100336	19990113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11263708	A2	19990928	JP 1998-368469	19981210
JP 11263706	A2	19990928	JP 1998-368470	19981210
CN 1230398	A	19991006	CN 1999-100421	19990113
PRIORITY APPLN. INFO.:			JP 1998-18217	19980113
			JP 1998-18218	19980113

AB A powder compn. comprises a copolymer contg. an organopolysiloxane monomer and one or more kinds of monomer selected from a group composed by a monomer contg. N group, a monomer possessing a polyoxyalkylene group, a monomer possessing a polylactone group, a monomer possessing a hydroxyl group and a monomer possessing an anionic group, and a powder. Further, a powder dispersion in oil comprising the copolymer, powder and oil, and a **cosmetic** compn. contg. them are disclosed. The powder compn. and a powder dispersion in oil have a less cohesion of powder particles and is superior in a dispersing ability and a dispersion stability. The **cosmetic** compn. which contains the powder compn. has a good stability and gives an excellent sensation at the actual use. A viscose liq. product was prepd. from CH<sub>2</sub>:CMeCO<sub>2</sub>(CH<sub>2</sub>)<sub>3</sub>(SiMe<sub>2</sub>O)<sub>n</sub>SiMe<sub>3</sub> (n = 25) 92, acrylamide 1.6, styrene 2, toluene 100, and azobis(isobutyronitrile) 2 g. The product was combined with decamethylcyclopentasiloxane and ZnO to make a ZnO dispersion. A sunscreening W/O milky lotion contg. the ZnO dispersion was also prepd. The sunscreening lotion had a good dispersion stability.

IT 233591-50-9P 233591-52-1P 233591-53-2P  
233591-96-3P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(powder compns. contg. powder and polysiloxane-contg. copolymers for **cosmetics**)

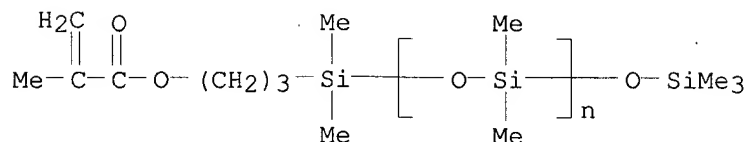
RN 233591-50-9 HCAPLUS

CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with .alpha.-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-.omega.-[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 1-ethenyl-2-pyrrolidinone, graft (9CI) (CA INDEX NAME)

CM 1

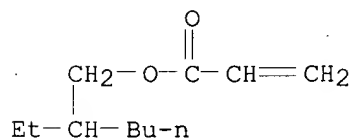
CRN 123109-42-2

CMF (C2 H6 O Si)<sub>n</sub> C12 H26 O3 Si2  
CCI PMS



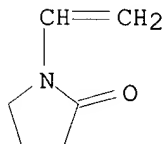
CM 2

CRN 103-11-7  
CMF C11 H20 O2



CM 3

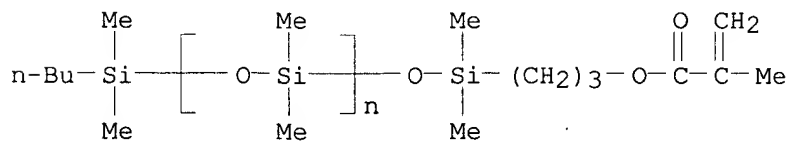
CRN 88-12-0  
CMF C6 H9 N O



RN 233591-52-1 HCAPLUS  
CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with .alpha.-(butyldimethylsilyl)-.omega.-[[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]oxy]poly[oxy(dimethylsilylene)] and 1-ethenyl-2-pyrrolidinone, graft (9CI) (CA INDEX NAME)

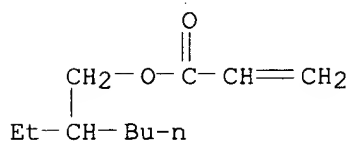
CM 1

CRN 149925-73-5  
CMF (C2 H6 O Si)<sub>n</sub> C15 H32 O3 Si2  
CCI PMS



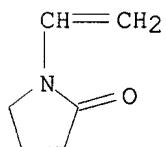
CM 2

CRN 103-11-7  
 CMF C11 H20 O2



CM 3

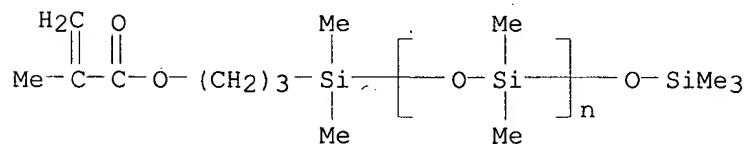
CRN 88-12-0  
 CMF C6 H9 N O



RN 233591-53-2 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  
 .alpha.-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-.omega.-  
 [(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], 1-ethenyl-2-  
 pyrrolidinone and octadecyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX  
 NAME)

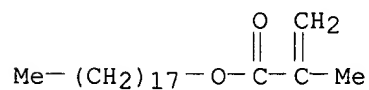
CM 1

CRN 123109-42-2  
 CMF (C2 H6 O Si)<sub>n</sub> C12 H26 O3 Si2  
 CCI PMS



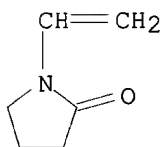
CM 2

CRN 32360-05-7  
 CMF C22 H42 O2



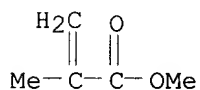
CM 3

CRN 88-12-0  
CMF C6 H9 N O



CM 4

CRN 80-62-6  
CMF C5 H8 O2

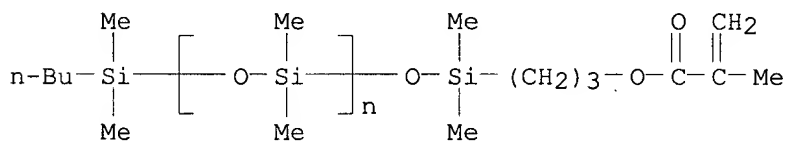


RN 233591-96-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with .alpha.-(butyldimethylsilyl)-  
.omega.-[[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]oxy]poly  
[oxy(dimethylsilylene)], 1-ethenyl-2-pyrrolidinone, 2-ethylhexyl  
2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate (9CI) (CA INDEX  
NAME)

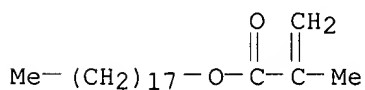
CM 1

CRN 149925-73-5  
CMF (C2 H6 O Si)<sub>n</sub> C15 H32 O3 Si2  
CCI PMS



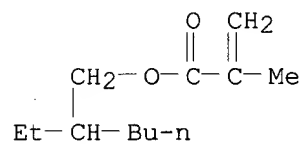
CM 2

CRN 32360-05-7  
CMF C22 H42 O2



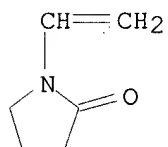
CM 3

CRN 688-84-6  
CMF C12 H22 O2



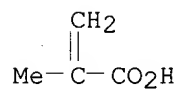
CM 4

CRN 88-12-0  
CMF C6 H9 N O



CM 5

CRN 79-41-4  
CMF C4 H6 O2



=&gt; d ibib abs hitstr 7

L13 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1993:656283 HCAPLUS

DOCUMENT NUMBER: 119:256283

TITLE: **Hair** preparations containing trimethylsiloxysilane-contg. vinyl polymers

INVENTOR(S): Uchama, Jujiro; Ogasawara, Motomi

PATENT ASSIGNEE(S): Osaka Juki Kagaku Kogyo Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

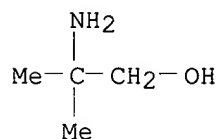
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 05213722	A2	19930824	JP 1992-23692	19920210
	JP 3086522	B2	20000911		
AB	A mixt. comprising CH <sub>2</sub> :CR <sub>1</sub> CO <sub>2</sub> H (R <sub>1</sub> = H, Me) 10-30, CH <sub>2</sub> :CR <sub>1</sub> CO <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> Si(OSiMe <sub>3</sub> ) <sub>3</sub> (R <sub>1</sub> = same as above) and/or CH <sub>2</sub> :CHSi(OSiMe <sub>3</sub> ) <sub>3</sub> 1-20, CH <sub>2</sub> :CR <sub>1</sub> COR <sub>2</sub> (R <sub>1</sub> = same as above; R <sub>2</sub> = C1-4 alkoxy, amide) 20-85, and N-vinylpyrrolidone 0-40 wt.% is polymd. to give a material useful in prepg. <b>hair</b> conditioners. The compns. show good <b>hair</b> -setting property and give gloss and smoothness to the <b>hair</b> . A <b>hair</b> prepn. contg. methacrylic acid-tert-Bu methacrylate-methacryloxypropyltris(trimethylsiloxysilane copolymer aminomethylpropanol salt (prepn. given) was prepd.				
IT	151372-09-7P 151372-19-9P 151372-31-5P 151372-33-7P				
	RL: PREP (Preparation) (prepn. of, <b>hair</b> prepns. contg.)				
RN	151372-09-7 HCAPLUS				
CN	2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate, 3-ethenyl-1,1,1,5,5,5-hexamethyl-3-[(trimethylsilyl)oxy]trisiloxane and 1-ethenyl-2-pyrrolidinone, compd. with 2-amino-2-methyl-1-propanol (9CI) (CA INDEX NAME)				
CM	1				
CRN	124-68-5				
CMF	C4 H11 N O				



CM 2

CRN 151372-08-6

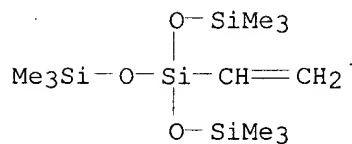
CMF (C11 H30 O3 Si4 . C8 H14 O2 . C6 H9 N O . C4 H6 O2)x

CCI PMS

CM 3

CRN 5356-84-3

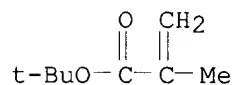
CMF C11 H30 O3 Si4



CM 4

CRN 585-07-9

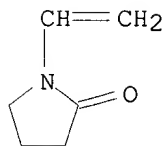
CMF C8 H14 O2



CM 5

CRN 88-12-0

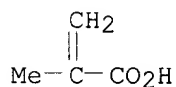
CMF C6 H9 N O



CM 6

CRN 79-41-4

CMF C4 H6 O2



RN 151372-19-9 HCAPLUS

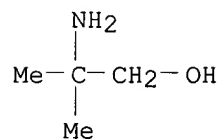
CN 2-Propenoic acid, polymer with 1,1-dimethylethyl 2-propenoate,  
3-ethenyl-1,1,1,5,5,5-hexamethyl-3-[(trimethylsilyl)oxy]trisiloxane and  
1-ethenyl-2-pyrrolidinone, compd. with 2-amino-2-methyl-1-propanol (9CI)  
(CA INDEX NAME)

CM 1

CRN 124-68-5



CMF C4 H11 N O



CM 2

CRN 151372-18-8

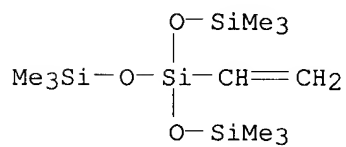
$$\text{CMF} \quad (\text{C}_{11} \text{H}_{30} \text{O}_3 \text{Si}_4 \cdot \text{C}_7 \text{H}_{12} \text{O}_2 \cdot \text{C}_6 \text{H}_9 \text{NO} \cdot \text{C}_3 \text{H}_4 \text{O}_2)_x$$

CCI      PMS

CM 3

CRN 5356-84-3

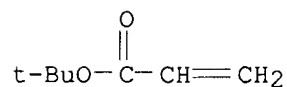
CMF C11 H30 O3 Si4



CM . 4

CRN 1663-39-4

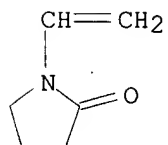
CMF C7 H12 O2



CM 5

CRN 88-12-0

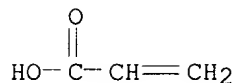
CMF C6 H9 N O



CM 6

CRN 79-10-7

CMF C3 H4 O2



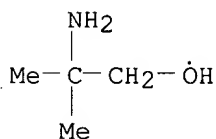
RN 151372-31-5 HCAPLUS

CN 2-Propenoic acid, polymer with 1,1-dimethylethyl 2-propenoate, N-(1,1-dimethyl-3-oxobutyl)-2-propenamide, 3-ethenyl-1,1,1,5,5,5-hexamethyl-3-[(trimethylsilyl)oxy]trisiloxane and 1-ethenyl-2-pyrrolidinone, compd. with 2-amino-2-methyl-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 124-68-5

CMF C4 H11 N O



CM 2

CRN 151372-30-4

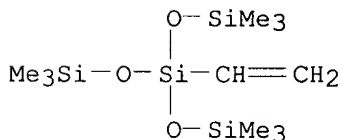
CMF (C11 H30 O3 Si4 . C9 H15 N O2 . C7 H12 O2 . C6 H9 N O . C3 H4 O2)x

CCI PMS

CM 3

CRN 5356-84-3

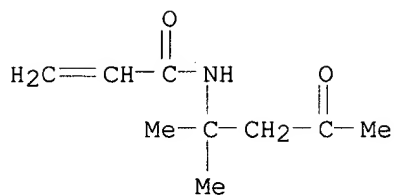
CMF C11 H30 O3 Si4



CM 4

CRN 2873-97-4

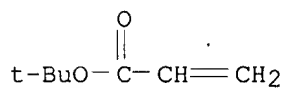
CMF C9 H15 N O2



CM 5

CRN 1663-39-4

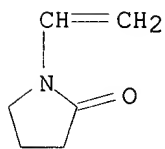
CMF C7 H12 O2



CM 6

CRN 88-12-0

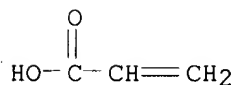
CMF C6 H9 N O



CM 7

CRN 79-10-7

CMF C3 H4 O2



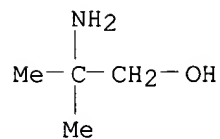
RN 151372-33-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl  
 2-methyl-2-propenoate, ethenyl acetate, 3-ethenyl-1,1,1,5,5,5-hexamethyl-3-  
 [(trimethylsilyl)oxy]trisiloxane and 1-ethenyl-2-pyrrolidinone, compd.  
 with 2-amino-2-methyl-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 124-68-5

CMF C4 H11 N O



CM 2

CRN 151372-32-6

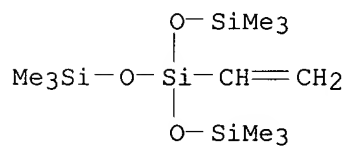
CMF (C11 H30 O3 Si4 . C8 H14 O2 . C6 H9 N O . C4 H6 O2 . C4 H6 O2)x

CCI PMS

CM 3

CRN 5356-84-3

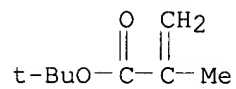
CMF C11 H30 O3 Si4



CM 4

CRN 585-07-9

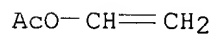
CMF C8 H14 O2



CM 5

CRN 108-05-4

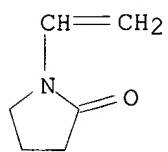
CMF C4 H6 O2



CM 6

CRN 88-12-0

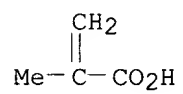
CMF C6 H9 N O



CM 7

CRN 79-41-4

CMF C4 H6 O2



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L13 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1993:175496 HCAPLUS

DOCUMENT NUMBER: 118:175496

TITLE: **Hair** preparations containing film-forming copolymers

INVENTOR(S): Uchiyama, Yujiro; Ogasawara, Motomi

PATENT ASSIGNEE(S): Osaka Yuku Kagaku Kogyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04321618	A2	19921111	JP 1991-86890	19910418
JP 3192159	B2	20010723		

AB **Hair** prepn. contain bases prepd. by copolymn. of monomers contg. 40-95 wt.% N-vinylbutyrolactam or N-vinylcaprolactam and 1-30 wt.% CH<sub>2</sub>:CR1CO<sub>2</sub>(CH<sub>2</sub>)<sub>3</sub>Si(OR<sub>2</sub>)(OR<sub>3</sub>)OR<sub>4</sub> and/or CH<sub>2</sub>:CHSi(OR<sub>2</sub>)(OR<sub>3</sub>)OR<sub>4</sub> (R<sub>1</sub> = H, Me; R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> = Me, Et, .beta.-methoxyethoxy, Ac). The copolymers form glossy films on the **hair** in setting by **hair** driers. Vinyl acetate 15, 2-hydroxyethyl methacrylate 10, vinyltriethoxysilane 10, and N-vinylpyrrolidine 65 parts were polymd. using AIBN in EtOH at 80.degree. for 12 h to give an EtOH soln. contg. 60% copolymer (av. mol. wt. 63 .times. 10<sup>3</sup>), which showed good compatibility with H<sub>2</sub>O and LPG and good curl retention property.

IT **146796-88-5P**

RL: PREP (Preparation)

(prepn. of, **hair**-setting compns. contg., film-forming)

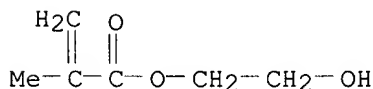
RN 146796-88-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with ethenyl acetate, 1-ethenyl-2-pyrrolidinone, ethenyltriethoxysilane and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9

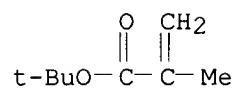
CMF C6 H10 O3



CM 2

CRN 585-07-9

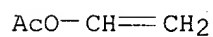
CMF C8 H14 O2



CM 3

CRN 108-05-4

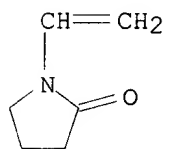
CMF C4 H6 O2



CM 4

CRN 88-12-0

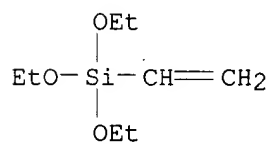
CMF C6 H9 N O



CM 5

CRN 78-08-0

CMF C8 H18 O3 Si



=&gt; d ibib abs hitstr 9

L13 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1992:657967 HCAPLUS

DOCUMENT NUMBER: 117:257967

TITLE: **Hair** preparations containing acrylate polymers

INVENTOR(S): Uchiyama, Yujiro; Ogasawara, Motomi

PATENT ASSIGNEE(S): Osaka Yuki Kagaku Kogyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

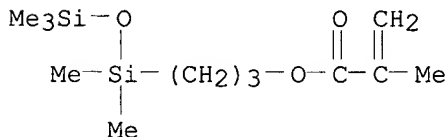
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 04154712	A2	19920527	JP 1990-277237	19901015
AB	A <b>hair</b> prepn. which gives luster and body to the <b>hair</b> contains copolymers of acrylic acid esters, N-vinylpyrrolidone, and ethylene-type unsatd. monomers. Thus, 85 % dimethylaminoethyl methacrylate sulfate-EtOH soln. 47, methacryloxypropyl(trimethylsiloxy)dimethylsilane 10, tert-Bu methacrylate 50, and anhyd. EtOH 143 parts by wt. were mixed and polymd. in the presence of a polymn. initiator. The product was dissolved in EtOH to give a <b>hair</b> prepn.				
IT	144719-07-3 144719-08-4 144770-75-2 144770-76-3				
	RL: BIOL (Biological study) ( <b>hair</b> prepns. contg.)				
RN	144719-07-3 HCAPLUS				
CN	Ethanaminium, N-ethyl-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, ethyl sulfate, polymer with dodecyl 2-methyl-2-propenoate, 1-ethenyl-2-pyrrolidinone methyl 2-methyl-2-propenoate and 3-(pentamethyldisiloxanyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	18151-85-4				
CMF	C12 H26 O3 Si2				

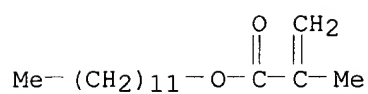


CM 2

CRN 142-90-5

CMF C16 H30 O2

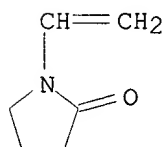




CM 3

CRN 88-12-0

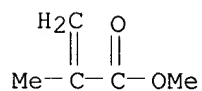
CMF C6 H9 N O



CM 4

CRN 80-62-6

CMF C5 H8 O2



CM 5

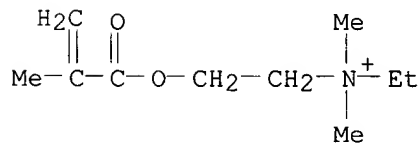
CRN 13223-03-5

CMF C10 H20 N O2 . C2 H5 O4 S

CM 6

CRN 48063-69-0

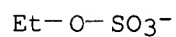
CMF C10 H20 N O2



CM 7

CRN 48028-76-8

CMF C2 H5 O4 S



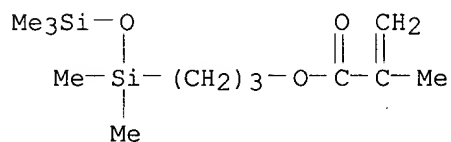
RN 144719-08-4 HCAPLUS

CN Ethanaminium, N-ethyl-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, ethyl sulfate, polymer with 1-ethenyl-2-pyrrolidinone, ethyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and 3-(pentamethyldisiloxanyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 18151-85-4

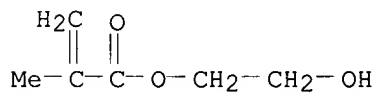
CMF C12 H26 O3 Si2



CM 2

CRN 868-77-9

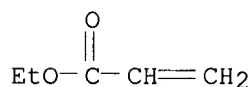
CMF C6 H10 O3



CM 3

CRN 140-88-5

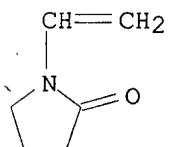
CMF C5 H8 O2



CM 4

CRN 88-12-0

CMF C6 H9 N O

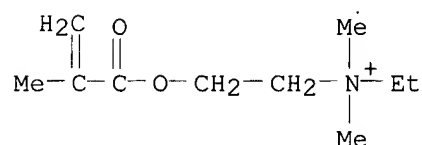


CM 5

CRN 13223-03-5  
 CMF C10 H20 N O2 . C2 H5 O4 S

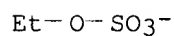
CM 6

CRN 48063-69-0  
 CMF C10 H20 N O2



CM 7

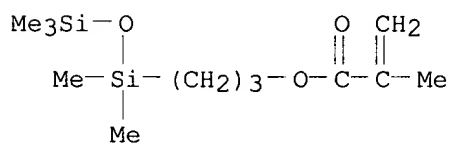
CRN 48028-76-8  
 CMF C2 H5 O4 S



RN 144770-75-2 HCAPLUS  
 CN Ethanaminium, N-ethyl-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, ethyl sulfate, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate, 1-ethenyl-2-pyrrolidinone and 3-(pentamethyldisiloxanyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

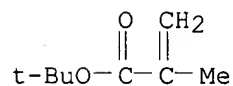
CM 1

CRN 18151-85-4  
 CMF C12 H26 O3 Si2



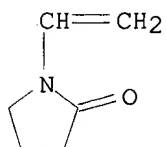
CM 2

CRN 585-07-9  
 CMF C8 H14 O2



CM 3

CRN 88-12-0  
CMF C6 H9 N O

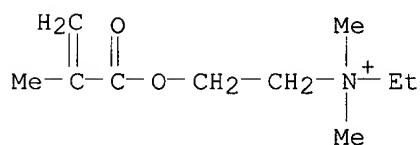


CM 4

CRN 13223-03-5  
CMF C10 H20 N O2 . C2 H5 O4 S

CM 5

CRN 48063-69-0  
CMF C10 H20 N O2



CM 6

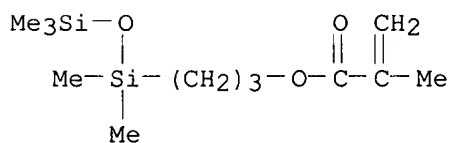
CRN 48028-76-8  
CMF C2 H5 O4 S

Et-O-SO<sub>3</sub><sup>-</sup>

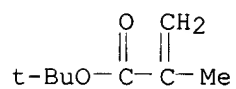
RN 144770-76-3 HCAPLUS  
CN Ethanaminium, N-ethyl-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, ethyl sulfate, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate, dodecyl 2-methyl-2-propenoate, 1-ethenyl-2-pyrrolidinone and 3-(pentamethyldisiloxanyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

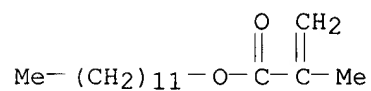
CRN 18151-85-4  
CMF C12 H26 O3 Si2



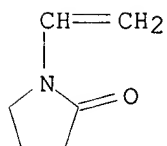
CM 2

CRN 585-07-9  
CMF C8 H14 O2

CM 3

CRN 142-90-5  
CMF C16 H30 O2

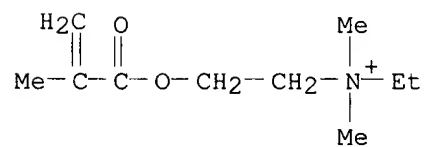
CM 4

CRN 88-12-0  
CMF C6 H9 N O

CM 5

CRN 13223-03-5  
CMF C10 H20 N O2 . C2 H5 O4 S

CM 6

CRN 48063-69-0  
CMF C10 H20 N O2

CM 7

FUBARA 09/762,039

CRN 48028-76-8  
CMF C2 H5 O4 S

Et-O-SO<sub>3</sub><sup>-</sup>